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FORTUNE

THE RICHEST 1%

Who they are, how they made it— and are they running away from the pack?

New millionaires Lynne and Bill Byrne

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FORTUNE

"I've learned more from my mistakes than my successes. If one thing doesn't work out, try something else." 42

THE SOCIETY/COVER STORIES

ABOVE: Self-made millionaire Bill Byrne, in a Jacuzzi with wife Lynne, has come a long way from the Iowa hog farm where he grew up. Photo by David Strick (Onyx).

COVER: Strick also took this photograph of the Byrnes at their home in the Colorado Rockies.

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In a country that reveres material success, there is apparently now such a thing as being *too* successful. The top 1% of earners did do better than everyone else in the 1980s, but much of the fire they're drawing is off target. Here's how they made it big—and why new taxes aren't the answer. *by Anne B. Fisher*

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EDITOR'S DESK

A RARE LOOK AT SAM WALTON

LET ME tell you about a riveting new book—*Sam Walton: Made in America* (Doubleday, $22.50). It's the story, in his own words, of a modest man who built a multibillion-dollar retailing empire, Wal-Mart Stores, on what we nostalgically call homespun values—honesty, fairness, commitment to quality. The moral is one I wish we could write about more often: You best enrich yourself by enriching others.

Sam Walton with FORTUNE's John Huey on the road last June.

Walton never talked much to the press until FORTUNE senior editor John Huey knocked on his door and became the only journalist ever to interview him for a major national magazine. Walton not only talked with him for a cover story that ran in 1989, but also invited him into the company's secret strategy meetings—another first for a journalist. More than Huey's persistence won Walton's trust. "I speak fluent bird dog-ese," says Huey, an Atlantan whose father, like Walton, was an avid hunter. "Bird dogs and hunting were one of Sam's few obsessions outside of Wal-Mart."

Huey became *the* expert on Wal-Mart's magic. His most recent cover story, "How Sam Walton Does It" (September 23, 1991), led to a handshake agreement to help Walton write his autobiography. By then Walton knew he was dying of cancer, so time was crucial. In February, Huey moved to Arkansas to spend more time with the ailing sage, working with him virtually until he died on April 6 at 74.

In more than two decades as a journalist, Huey has found no one so compelling—or inspirational—as Walton: "Sam was a wonderful mix of simple and complicated. He was folksy but shrewd, compassionate but Darwinian, warm but tough as an old boot."

Walton's generous spirit survives. He donated his share of the record $4 million book advance and future royalties to the New American Schools Development Corp. This nonprofit organization aims to pursue "break the mold" ideas to improve education—a subject close to FORTUNE's own heart.

Sam Walton: Made in America is in the proud tradition of collaborations between business leaders and FORTUNE, books like Alfred P. Sloan Jr.'s classic 1964 memoir, *My Years at General Motors* (with FORTUNE editor John McDonald), and Thomas Watson Jr.'s 1990 account of his life at IBM, *Father, Son, and Company* (with FORTUNE editor Peter Petre). And it shows all the signs of being a blockbuster. Excerpts begin on page 98.

Marshall Loeb

MANAGING EDITOR

FORTUNE (ISSN 0015-8259) Published biweekly with three issues in October by Time Inc. Principal office: Time & Life Building, Rockefeller Center, New York, NY 10020-1393. Reginald K. Brack Jr., President; Louis D. Boccardi, Executive Vice President; M. Johnston, Secretary. Subscription price $25 (introductory one year rate). Canada one year $27 (includes GST); $52.95 (includes GST); one year $77 (includes GST); $53.73. Second-class postage paid at New York, NY and at additional mailing offices. Authorized as second-class mail for Post Office Dept., Ottawa, Canada, and for payment of postage in cash. Member Audit Bureau of Circulations. POSTMASTER: send address changes to FORTUNE, P.O. Box 60001, Tampa, FL 33660-0001. Phone: (800) 621-8000. GST #R122781974. Customer inquiries: FORTUNE, P.O. Box 60001, Tampa, FL 33660-0001. Phone: (800) 621-8000. © 1992 Time Inc. All rights reserved

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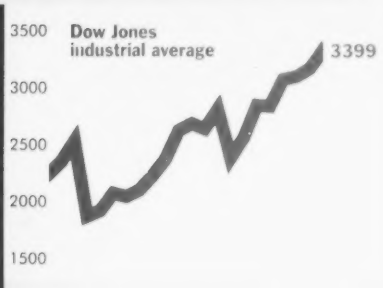
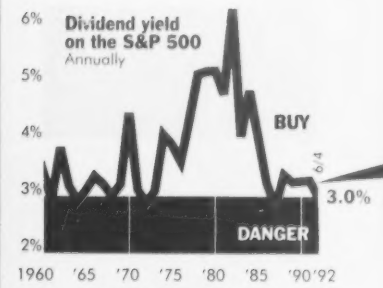
STATE OF THE MARKETS

STOCKS





Stocks hit the danger zone

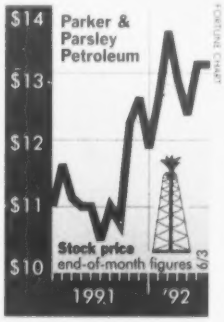
BONDS

FORTUNE CHARTS. CHARTS SHOW END-OF-QUARTER FIGURES
*BASED ON EARNINGS FOR THE LATEST FOUR QUARTERS
SOURCES: STANDARD & POOR'S; BOND BUYER; IBC/DONOGHUE'S MONEY FUND REPORT

say the strategists. As treacherous as the market's course might be, there is plenty of underlying economic strength to keep any market correction manageable. One positive indicator is the relationship of the S&P 500 market capitalization to the U.S. gross national product. According to statistics compiled by the Leuthold Group, a research firm in Minneapolis, the S&P 500 market cap equaled 72% of GNP in the first quarter of 1992, well below the median value of 89% for the period 1926 to 1992. In 1929, by contrast, the S&P 500 equaled *three times* GNP. In the view of Byron Wien, strategist at Morgan Stanley, "The market doesn't have to come down hard. It will just be a struggle to go higher." Such is the tone of today's optimism.

A GUSHER IN THE OIL FIELDS

■ Look, Ma, there's an accountant in a cowboy hat out yonder by that oil rig, and darned if he don't look satisfied. Yessir, he must have discovered **Parker & Parsley Petroleum**, an independent oil and gas exploration and development company out of Midland, Texas. Equal parts petroleum engineers and financiers, the management at Parker & Parsley believes in punching holes in the ground, not in the balance sheet. But no wildcatters these: With low debt, lots of proven wells, and a knack for making money, the company is considered a conservative energy play that's a shoo-in to shoot up.



One strategy for success at Parker & Parsley, a former limited partnership that converted to corporate status in February 1991, has been to grow by acquisition. Geologically speaking, many oil fields in the U.S. are mature. Giants like Mobil can't make enough to justify expenses, so they sell these wells off. In this depressed oil market, Parker & Parsley can pick them up on the cheap.

But the company doesn't just save money on its purchases. It spends 30% less than its peers when it drills wells, notes Paine Webber analyst Mark Kellstrom. Because 75% of the company's production is concentrated in the Permian basin of West Texas, Parker & Parsley can negotiate volume discounts with contractors and suppliers of cement, pipes, and the like. It plans to exploit that advantage further, adding as many as 250 wells per year to its 4,300 total over the next three years, which would increase production by 15% to 20% per year.

Parker & Parsley's goal, says vice chairman Herbert Williamson, is to expand its $600 million in reserves to $1 billion by 1995. The company has the money to make it happen. Unlike most of its peers, it has earnings—$15 million last year on $147 million in revenues. Reflecting the vagaries of the oil price, as well as some accounting charges due to acquisitions, analysts are looking for earnings per share of 75 cents this year—down slightly from 1991—and $1.05 next year. But the real story, analysts say, is the company's cash flow, which should match production increases of 15% to 20% per year, as much as twice their peer group mean.

The stock, recently $13 a share, should do at least as well. Unknown to most investors—institutions own less than 30%—the shares sell at an 18% discount to asset value, vs. a group average discount of 10%. Says Hugh Denison, portfolio manager of the Heartland Value Fund: "A company like this should be 50% to 60% owned by institutions. Recognition and cash flow will drive the stock." Denison bases his projections on an oil price at or below the current rate of $21 a barrel. A wild card for investors: Every dollar increase in the price per barrel adds 18 cents a share to earnings. – **Susan E. Kuhn**

EUROPEAN STOCKS COULD BE THE STARS OF 1992

■ Looking to buy the stocks of great companies at a discount? Try a Eurobargain. While many European exchanges have already chalked up big gains this year, most trade at nearly half the price/earnings multiple of Standard & Poor's 500-stock index. Says Norman Kurland, who manages the $650 million international part of the Pioneer II fund: "There's easily a 20% gain left in Europe over the next year. I just don't see

FOUR BOURSES THAT COULD BOOM

	ECONOMIC GROWTH[1]		STOCK MARKET		
	1991	1992 FORECAST	Price-to-earnings multiple[2]	Price-to-cash flow multiple[2]	Year-to-date market change[3]
Germany	3.2%	1.8%	16.9	5.0	12.2%
France	1.4%	2.1%	16.0	6.6	16.7%
Netherlands	2.2%	1.8%	13.9	6.1	12.1%
Spain	2.5%	2.9%	10.5	5.1	8.3%

[1] All numbers are OECD forecasts for GDP growth with the exception of Germany, which is GNP. [2] Based on trailing four quarters. [3] In local currency.

SOURCES: OECD, MORGAN STANLEY CAPITAL INTERNATIONAL

JIM MCMANUS FOR FORTUNE

that in the U.S." Kurland has an eye for winning markets: His portfolio of non-U.S. stocks returned 22% last year, vs. a 12.4% average for international mutual funds tracked by Lipper Analytical.

The extra oomph for Europe's bourses will come partly from the prospect of improved corporate profits as the Continent's economies begin to climb out of recession. But the bigger boost, analysts say, will come from declining interest rates. While inflation in most European countries is down to around 4%, short-term rates still hover near 10%, resulting in record-high real interest rates. Central bankers at most European countries are ready to trim rates now but, mindful of their currencies, are waiting for Germany's powerful Bundesbank to act first.

Economist David Roche, global strategist at Morgan Stanley in London, thinks the Bundesbank will cut rates soon, perhaps by the end of summer, because Germany's economy, previously among the strongest in Europe, has been slowing sharply. That act may even be speeded by the Danish vote in June not to ratify the treaty on European economic integration. Roche believes the vote will strengthen the deutsche mark as traders flock to the strongest currency, so German authorities will be under pressure to counter with lower interest rates.

Beyond that ripple, the Danish vote should have no significant effect on the outlook for European stocks, analysts say. The nations of Europe have been headed toward a convergence of monetary policy for some time and will continue on that path because it is in their interest to pursue a unified anti-inflation course. Says Bert Jansen, European equity strategist at Paribas Capital Markets Group in London: "Nothing fundamental has changed."

So where will the bull run with the most panache? Many portfolio managers are placing their bets on France. The economy is improving, inflation remains low, and the bourse is beginning to bounce. Says Kurland: "France is the classic case of an interest-sensitive stock market because of all the short-term money on the sidelines." Some 1.3 trillion French francs ($240 billion) sit in short-term accounts earning close to 10%; when interest rates start to drop, Kurland thinks, much of this will seep into the equity market, much like the CD money that flooded U.S. stocks as America's interest rates fell.

The easiest way to take a broad swipe at France is by buying shares of the **France Growth Fund**, a closed-end fund that trades on the Big Board at a 16% discount to net asset value. Kurland is buying stocks that will benefit from a Franco-recovery, such as **Michelin**, the tiremaker, which recently went through a brutal restructuring, and **Générale des Eaux**, a conglomerate that includes a water utility, a construction company, and an environmental cleanup business. To buy these stocks, American investors will pay more in commissions than for U.S. stocks, but the values overseas can make that worthwhile.

The Dutch market, says Bert Jansen at Paribas, is also set for a re-rating. Among the least expensive in Europe, it trades for 11 to 12 times next year's earnings estimates, vs. P/Es of 14 to 16 elsewhere in Europe. "There's no reason the market shouldn't trade more in line with the rest of Europe," Jansen says.

Real bottom fishers may want to stake out Spain. Inflationary pressures have kept interest rates high and the market's valuation lower than all others in Europe. But rates there should follow Germany's down too. Closed-end investors can buy the **Growth Fund of Spain**, which sells at 15% below its net asset value.

Some analysts think the biggest gains will be found back in Frankfurt, where companies have strong international footing. Says Steven Nagourney, international strategist at Lehman Brothers: "Germany is early in the cycle of a big bull market." He says investment in the East should start to pay off for corporate Germany by early next year as that part of the country starts to grow. Meanwhile, Germany's well-tuned export machine will benefit from the pickup in world demand for capital goods. He's buying heavyweights such as **Mannessman**, **Seimens**, **Daimler-Benz**, and **Volkswagen**, all of which are available through ADRs. He also recommends the **Future Germany Fund**, which trades at a 15% discount to its net asset value. – **Shelley Neumeier**

Michelin's earnings could grow 50% in 1993, thanks to a recent restructuring.

THE NEW DEBATE OVER THE VERY RICH

The top 1% of earners did better than everyone else in the 1980s, but much of the fire they draw is off target. Here's how they got it—and why new taxes aren't the answer. ■ *by Anne B. Fisher*

1% BILL BYRNE'S life story is an American classic—humble farm boy makes good by working his tail off. He grew up on a 240-acre hog farm in Pocahontas County, Iowa, the oldest of six, and put in such arduous hours on chores that going off to college was, he recalls, "like a vacation." At 25, Byrne joined Dain Bosworth, the regional investment house, and by 29 was the youngest branch manager of any NYSE-listed firm. He was also well on his way to a fortune, investing heavily in a chain of Mexican fast-food restaurants in Des Moines in the mid-1970s, a time when most Midwesterners couldn't tell a taco from an enchilada.

Today, at 48, Byrne runs a multimillion-dollar mini-empire with 200 employees. It includes 13 Taco John's restaurants in Iowa, a thriving regional magazine on agribusiness, and a successful practice in human-resource consulting. Despite an annual income of more than $500,000 a year, Byrne still works hard, but he and wife Lynne have more time to enjoy the little extras money can buy—such as a second home in the Colorado Rockies. "In my professional life I had some failures over the years," he says. "But I think I've learned more from my mistakes than my successes. You just pick up and go on. If one thing doesn't work out, try something else. Never give up."

With his compulsion to improve himself—he spends about 15 hours a week reading books of the how-to-be-a-super-manager variety, and recently wrote one of his own—Byrne is a likable exemplar of a group that has lately been much maligned and politically embattled: the top 1% of income earners in the U.S. These people, whose pretax incomes for a family of four started at roughly $350,000 in 1991 and went up (and

Kicking back in Dillon, Colorado: Bill and Lynne Byrne worked hard to reach the mountaintop.

PHOTOGRAPHS BY DAVID STRICK—ONYX

up and up), are the folks who walked off with most of the income gains of the Roaring Eighties. Census Bureau and IRS data analyzed by the Congressional Budget Office show that from 1977 through 1989 the annual take-home pay of the average American family edged up 9%, but for the lucky 1% of the population it more than doubled, to an average of $410,000.

These statistics—released in an election year—have sparked a vigorous round of rich-bashing, particularly by Democrats. Bill Clinton peppers his campaign speeches with attacks on income inequality that draw heavily on research by Paul Krugman, an MIT economist. Krugman claims that the gap between the richest Americans and the rest of the populace has become more vast—and, by implication, less fair—than at any time since the Great Depression. Such talk has Bush Administration officials scurrying to defend the Republican record with statistics of their own. The sudden outbreak of populism has even inspired billionaire Ross Perot, of all people, to campaign as a champion of the middle class.

WHILE CONGRESS mulls over new legislation, including a proposed 10% surtax on anyone with taxable income of more than $1 million a year, the fortunate few who fared most handsomely in the past decade might be excused some puzzlement. In a country that reveres material success, there is apparently now such a thing as being *too* successful.

The political fracas over income inequality tends to oversimplify what is, in truth, exceedingly complex. The available statistics are slippery and full of holes. The CBO's report to the House Ways and Means Committee last December, which started the whole furor, shows that the top 1% of earners have definitely been pulling away from the pack. They hauled in 70% of the total $250 billion net increase in household incomes between 1977 and 1989. That 70% shocker is the most quoted figure around.

But the CBO has since emphasized that to measure the income gains of the top 1% properly, you ought to adjust them for family size. As any parent knows, kids eat up a lot more than pizza money, and contrary to popular wisdom, high-income couples now have slightly more dependent children than they used to, while less well-off Americans have slightly fewer. Take that into account, and the share of income gains collared by the very rich drops to 44%.

The CBO also notes that there's a good argument for subtracting capital gains from incomes, since in many cases these reflect one-time windfalls, such as when a retiring couple sell their $500,000 house in Connecticut and move to Florida. Do that, and the infamous 70% dwindles to 33%. In short, the richest 1% gained a lot during the roaring Eighties but far less than commonly thought.

This titanic political battle is being waged over data drawn from 60,000 of the 100 million U.S. households. While that sounds small, it's a very respectable sample as these things go. Still, the data need to be handled with care. In 1989 the CBO projected income growth for 1990. It subsequently discovered capital gains income had been overestimated by $130 billion. Such whopping uncertainties suggest it would be wise to turn down the heat a bit in this debate.

Blurring the statistical picture still more are data such as those the Federal Reserve recently published showing that the wealthiest 1% of U.S. families claimed 36% of household net worth in 1989, up from 31% in 1983, while everybody else's share fell slightly. Because both the CBO and the Fed studies refer to the "top 1%," a casual reader might well infer that the same crowd is perched in both groups. It ain't necessarily so. There is, of course, a difference between annual income and net worth.

Focus 21 co-founder Elizabeth Clemmer spends lots of time on her 60-foot yacht *Tango Amour*.

"Just looking at reported income figures is a very poor indicator of who is really rich and who is not," notes John DeMarco, senior vice president of PSI, a financial services research firm in Tampa that scrutinizes the affluent. Here's one notable example: George Bush earns a salary of $200,000, and even his additional

REPORTER ASSOCIATE *Tricia Welsh*

Steve and Rick Cesari, with wives Indy (far right) and Kristen, squeezed a fortune from juice machines.

investment income of $208,274 a year in 1989 didn't bring him up to the average annual pretax pay of the top 1% then—$560,000. Yet with a reported net worth of about $4 million, he's wealthier than many people who in a given year may have reported twice his income to the IRS. (For more on those with the highest net worth, see the following story.)

How many of the top 1%, measured by income, boast the wealth of the Bushes, the Kennedys, the Rockefellers, and the Perots? How many are self-made newcomers and how many got their money the old-fashioned way—by inheriting it?

The political relevance of these questions is obvious. If the families in the lucky 1% in 1992 are a much different crew than their counterparts in 1977, then banging the class warfare drum over their success will ring hollow to many Americans. While no one knows the answers with any precision, most experts agree—and many of the data suggest—that the income figures mask an extraordinary amount of dynamism.

WHO ARE THE LUCKY 1%?

	1981	1991
BY OCCUPATION		
Corporate executives	44%	31%
Business owners	24%	18%
Attorneys	19%	13%
Doctors and dentists	10%	15%
Others (such as sports stars, actors, consultants)	3%	23%
OTHER CHARACTERISTICS		
Married couples	95%	84%
With dependent children	50%	49%
College graduates	88%	89%
Retired	11%	15%
Average age	53	51

THOMAS J. STANLEY, an Atlanta consultant who has been analyzing the wealthy for 22 years, figures that about 80% of high-income Americans are first-generation, self-made successes who tend to spend what they make rather than pile up a true fortune. A new study by the Treasury Department's Office of Tax Analysis also concludes that income mobility in the U.S. is high. Treasury examined 14,351 taxpayers who filed returns in every year from 1979 to 1988. Among the top 1% in 1988, only 32% had started the decade very rich and stayed that way. The majority were newcomers. Of them, however, just 2% began the 1980s all the way down in the bottom fifth and clambered all the way up to the top.

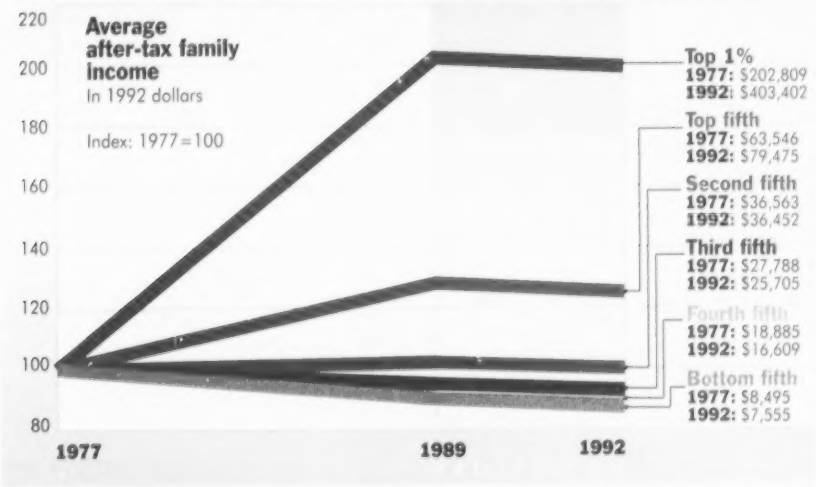
Other studies confirm some of Treasury's findings. Professors Greg J. Duncan and Willard Rogers of the University of Michigan and Syracuse University's Timothy M. Smeeding examined income data for 5,000 families over 23 years. Their conclusion: While it became somewhat harder during the 1980s for children of poor parents to climb the income ladder, it was easier during that superheated decade than in the 1970s for those in the middle to rise to the top.

But what explains the outsize income gains of the very rich in the 1980s? Two things: soaring real estate prices and a sizzling stock market. The Dow Jones average more than tripled between 1980 and 1989, despite the crash of 1987. That compares with a mere 4% increase during the 1970s. This was an era in which, more than ever, having some money enabled you to make even more.

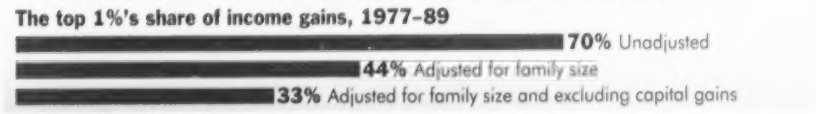
Changes in tax policy also helped. The top tax rate fell from 70% in 1980 to 28% during the decade, allowing the super-rich to keep more of their rising incomes. Even so, big earners paid a heap of taxes. The CBO reports that the top 1% in 1989 paid 24.6% of all U.S. personal income taxes, up from 18.3% in 1980. By contrast, the bottom 40% of households paid just 2.1% of all 1989 income taxes, down from 3.6% in 1980.

A recent cut at the data by Treasury's Of-

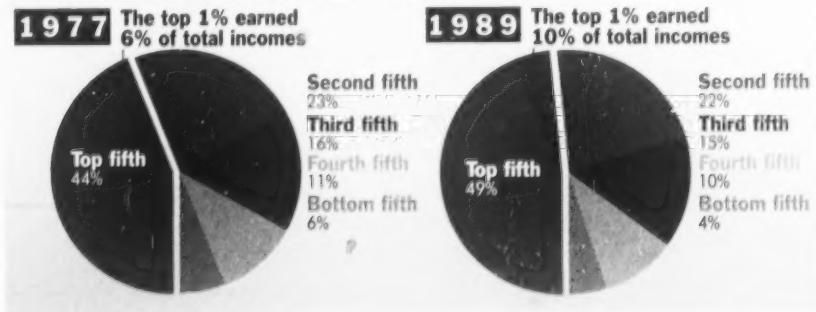
THE VERY RICH SCORED HUGE GAINS IN THE 1980s ...



... THOUGH LESS THAN THE RAW DATA SUGGEST


The top 1%'s share of income gains, 1977–89
70% Unadjusted
44% Adjusted for family size
33% Adjusted for family size and excluding capital gains

STILL, THEY WERE THE ONLY GROUP WHOSE SHARE OF INCOMES SOARED


1977 The top 1% earned 6% of total incomes
Top fifth 44%
Second fifth 23%
Third fifth 16%
Fourth fifth 11%
Bottom fifth 6%
1989 The top 1% earned 10% of total incomes
Top fifth 49%
Second fifth 22%
Third fifth 15%
Fourth fifth 10%
Bottom fifth 4%

fice of Tax Analysis makes this point more dramatically. Adjusting for inflation, all American households combined paid $51.8 billion more in federal income taxes in 1989 than they did in 1981. But the top 1% of wage earners alone accounted for $45 billion of that increase.

Besides benefiting from lower tax rates and a surging market, the very rich saw their salaries explode in the 1980s. Why? Partial answers can be found by asking another pertinent question that studies of top wage earners rarely pose: Who are the lucky 1%?

They number about one million households, or fewer people than live in Chicago. Most are highly educated—a big advantage in today's economy, in which knowledge is power. According to survey data gathered by research firm PSI, 89% are college graduates. During the 1980s, the super-rich got slightly younger, as some baby-boomers marched into the upper echelons. Their average age dropped from 53 to 51. A big majority of top one-percenters are married (84%), and about half still have kids at home.

Many of the very wealthy confirm the adage that the way to get rich in America is to work for yourself. While the major exceptions—CEOs and senior corporate managers—are the largest single group, their representation among the very rich fell from 44% in 1981 to 31% in 1991 (see table). Still, this smaller group is even better compensated in real terms than they used to be. Raises in salary accounted for only about one-third of top managers' new booty. Credit the rest to the rampaging Dow and the newfound popularity of stock options. In 1985 the typical CEO of a medium-size American industrial company—one with annual sales of between $500 million and $1 billion—got long-term incentives, mainly options, worth about $58,000. Last year the figure was over $527,000 (see FORTUNE, April 6, 1992). By now CEO pay has stirred up so much popular ill will that if boards of directors don't put their collective foot down, Congress might.

THE NEXT-LARGEST component of the top 1% is what PSI labels "others," including entertainers, athletes, and sundry professionals, such as accountants, management consultants, and investment bankers. In 1981 "others" made up a tiny fraction of the top-paid Americans. By 1991 they accounted for nearly one-quarter of the top 1%. In most cases pure market forces—measured by record and movie ticket sales, demand for a hot new business book, or corporate eagerness to pay huge fees for, say, some dynamite new strategic insight or maybe even an entire company—propelled these folks to the top of the income charts.

By 1990 even the *average* National Basketball Association player had dribbled into the top 1% with a $600,000 salary. Baseball, since free agency, is an even richer game. Average pay in the big leagues smoked past $1 million this year, partly owing to megadeals like slugger Bobby Bonilla's $29 million five-year contract with the New York Mets. Ball clubs have been able to afford such lavish compensation in part because of an explosion in television revenues. The Mets, for instance, took in $38.3 million last year from CBS, ESPN, and local stations, more than any other team except the Yankees.

The good fortune of the "other" category may dim somewhat in the 1990s. In baseball the networks could be getting ready to rain on the revenues game. Commissioner Fay Vincent warns that any team owner who isn't preparing for a drop in his cut of the TV take "isn't in touch with reality."

For the entertainment industry, reality has already set in. The globalization of the

Actor Jack Nicholson is one of Hollywood's small band of super-rich.

music and movie businesses in the 1980s, plus all those nifty royalties from VCR owners, made Hollywood hum. The recent recession has taken much of the glitter off, although a handful of hotshots still command top dollar. Superstar Jack Nicholson, 55, reportedly took home $5 million for ten days' work on *A Few Good Men*, which Columbia Pictures will distribute this fall.

Doctors, dentists, and lawyers together account for almost a third of the very rich, about the same proportion as ten years ago. The big news here is the decline of the lawyers—down from 19% in 1981 to 13%—and the rise of the Hippocratic oath–takers, whose share climbed from 10% to 15%. Supply and demand may explain some of that shift. While the number of doctors rose only 43% in the 1980s, U.S. spending on health care ballooned 142%. In the years ahead, more intensive efforts to hold down medical costs may trim some of those gains.

FINALLY, WE come to the segment of the lucky 1% who in most Americans' eyes are unalloyed good guys—the founders and owners of new businesses. About 20% of the super-rich are entrepreneurs. Whatever your estimate of CEOs' or ballplayers' worth to society, there's no denying that these men and women—capitalism's equivalent of a high-wire act with no net below—are a breed apart, and not merely because of the risks they take. Through grueling years of work and worry, they create new enterprises, new jobs, sometimes whole new markets.

And at the moment, entrepreneurs are the primary engineers of economic growth. Between 1980 and 1990, FORTUNE 500 companies shed 3.4 million jobs, but companies with fewer than 500 employees created more than 13 million.

What do entrepreneurs have in common? Not much, says PSI's John DeMarco: "The biggest income earners are iconoclasts, with a remarkably wide range of investment patterns, attitudes, and consumption habits. You really can't make too many general statements about these people."

Take the couple on FORTUNE's cover. Demographically speaking, Bill and Lynne Byrne, who vaulted into the top 1% in the early 1980s, are about as typical as they could be: married, two dependent children. Still, Byrne regards himself as a lifelong maverick. "I wouldn't be where I am now without my independence, going against the grain, not doing 'the done thing,'" he muses. "Self-made people are natural nonconformists."

Often these iconoclasts are somewhat ahead of their time, acting on an idea just before it seems truly practical—like hawking Mexican fast food in Iowa in Byrne's case, or selling a million juice machines a year to diet-conscious consumers.

Juice machines? Absolutely. Meet the Cesari brothers, Steve and Rick, now living in Seattle, where they started Trillium Health Products just three years ago. It markets a $289 electric appliance called Juiceman—as well as a smaller, $150 version, the Juiceman Jr.—that squeezes the bejabbers out of vegetables and fruits to make a quick, healthful drink. Juicers are now about the hottest small appliance going, the Cuisinart of the 1990s, and retailers' main problem is keeping enough of them in stock. Trillium isn't the only company riding the wave, but the Cesaris say annual revenues have surged from $950,000 in 1989 to more than $75 million this year.

The oldest of eight children, Steve, 38, and Rick, 35, are too young to have been among the top 1% when the CBO started counting in 1977. They grew up in suburban Westchester County, New York, working after school and on weekends in their father's grocery store—until Dad died of a heart attack at age 48. Rick earned a premed degree in college before moving west to join a direct-mail marketing partnership. Steve went to Panama City, Florida, and started a chain of sporting goods stores.

"We've both been very much into nutrition and exercise for a long time," says Steve, "and we wanted to go into business together, but it wasn't until 1989 that we saw this opportunity." Once they saw it, "we hocked everything we had to raise startup capital. We even took out a home equity loan on our mother's house." (Mom is out of debt now.)

Besides selling juicers, Trillium runs seminars on nutrition that encourage people to eat more fruits and vegetables. "Consumption of meat is not only bad for you, it's destroying the planet," declares Rick. "By changing your eating habits, you can also help save the environment." Trillium's 160 employees, he adds, "believe strongly in what we're doing." At the company's Seattle headquarters, people don't take coffee

Bobby Bonilla scored a record contract with the Mets.

breaks. They take juice breaks, squeezing the stuff out of 4,000 pounds of organically grown vegetables per week.

Sudden success hasn't much altered the way the Cesari brothers live. Steve hauls his four kids around in a Chrysler minivan, and Rick drives a Chevy. They both spend lots of time with their families; Rick and his wife just had their first baby. The simple life is mostly a result of some distinctly post-Reaganite soul-searching. "In the 1980s I did pretty well in direct marketing, and the first thing I did was buy myself a Porsche convertible," says Rick. "Then that business went south, and I had already realized that material things weren't the answer anyway. The second time around, starting a business, you feel like you have to *contribute* something."

Even more families will achieve affluence in the 1990s than did so in the 1980s.

SOUND CORNY? Maybe, but consider this: When people from middle-class backgrounds suddenly find themselves in high cotton, they can come unhinged in a big way. A mission, a sense that life has some larger purpose, whatever one perceives that to be, is a powerful antidote to confusion and despair. Ask Michael Stolper, a money manager in San Diego who acts as a kind of amateur therapist and father confessor to 400 high-income clients. They trust him with some $3 billion of their assets, and many of their personal secrets too. "A big income is a two-edged sword," says Stolper. "People get seduced by money, but no matter how much you make, deep down you know you're the same schlub you always were. It's a shrink's bonanza."

The most contented among the top 1%, say Stolper and others, share two traits. First, they earn their money by doing something they truly love, so that the cash is just the frosting on the cake, a byproduct of their efforts rather than an end in itself. Second, they have a strong sense of a meaning in life that transcends the workaday routine of getting and spending.

The Cesaris, who donate cash and juicers to the homeless and other causes, find that larger purpose in promoting health and saving the planet. People like Elizabeth Clemmer find it in religious faith. Clemmer, 41, and two partners started Focus 21 International ten years ago. It now has 182 employees. Focus 21 makes biodegradable, non-animal-tested hair and skin care products in a 90,000-square-foot plant in Vista, California, and sells them to more than 100,000 haircutting salons across the U.S. and Canada.

No unworldly ascetic, Clemmer spends a lot of time on her 60-foot yacht, the *Tango Amour*. Yet, says she, "I have a strong relationship with God and feel very close to him in my life. I feel very blessed. Everybody has his or her own truth. But I really feel that no matter how much money people have, without a solid spiritual connection, they tend to be kind of . . . *lost*."

An active churchgoer, Clemmer five years ago began putting her beauty-business expertise into assisting people in need. With the help of nonprofit groups, she persuaded department stores like Saks and Neiman Marcus to donate time, talent, and clothes for a series of fashion shows to benefit cancer and AIDS research, the Children's League, the homeless, muscular dystrophy, and several West Coast hospitals. The shows have raised hundreds of thousands of dollars, but Clemmer insists it's no big deal: "I love doing this. It's a great way to have fun and do good at the same time."

Such laudable private generosity won't do much to assuage public animosity toward the top 1%. The widening abyss between the super-rich and everyone else, overstated and misunderstood though it may be, is real. Question is, will it continue to worsen?

Probably not. For one thing, the tax increases contained in the 1990 budget deal that George Bush struck with Democrats in Congress have already blunted the effect of some of the Reagan-era cuts. Nor are the stock and real estate markets likely to deliver such stunning gains in the decade ahead.

Demographic shifts are also likely to make more Americans feel, if not rich, at least considerably better off. In a report released last spring, the Conference Board, a business research organization, notes that because vast hordes of Americans are reaching their peak earning and spending years in the 1990s, "total personal income flowing to the nation's consumers will be growing a lot more quickly than the population." The study predicts that average household income will rise by 15% in the 1990s, up from 11% in the 1980s. Better still, several million families will ascend from the lower income brackets to the middle, and even more middle-class families will achieve affluence than did so in the 1980s.

Significantly, the best-educated workers will have the biggest edge. Income in families headed by college graduates, the Conference Board study says, will rise 35% during the 1990s, compared with a 25% increase for the population as a whole. By the end of the decade, such college-educated families will account for 25% of the population but will earn 40% of all personal income.

YOU'VE HEARD IT before, but the most powerful explanation for the growth in income inequality—a phenomenon that afflicts all developed economies and not just the U.S.—is that in the age of the microchip, high-paying jobs for low-skilled workers are gone. Continued economic growth—the kind that raises all boats and not just those flying yacht-club flags—will hinge upon a society's ability to generate a steady supply of educated employees. Attempting to close the income gap by raising taxes on the rich is attacking the wrong problem with a blunt instrument, one that could have unpleasant side effects, such as discouraging savings and investment. (The truly wealthy, after all, can always switch from realizing their capital gains to, say, clipping more coupons from their tax-free municipal bonds.)

Instead, policymakers should be directing most of their attention to how they can help better educate, train, and retrain American workers. Where *is* that post–Cold War peace dividend anyhow? And what more constructive way to spend it than by putting more government money to work where it's needed most? Some prime candidates: Head Start programs, inner-city schools (nearly 20% of U.S. high school students drop out before graduation), and college loans and scholarships.

As for what you can do about closing your personal wealth gap, you could do worse than to listen to consultant Thomas Stanley. "The quest for status—expensive cars, a second home, a country club membership, and so on—is the single biggest reason why a high income does not usually translate into real wealth," he says. "Any family can rise from middle-class to rich in this country by forgoing status, even for just one generation, and investing instead." Want to be really rich someday? Get educated, work hard—and resist the urge to splurge.

WHAT TO DO ABOUT WORKERS' COMP

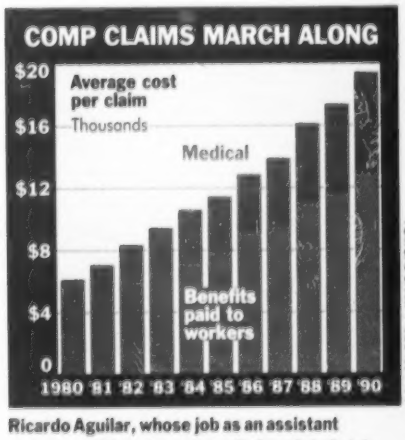
The costs are killing business. Managers can save plenty by focusing on safety and showing concern for injured employees. How about a call to that laid-up worker? ■ *by Mark D. Fefer*

THE WORKERS' compensation system is socking it to companies, and they are howling. Last year employers had to pour more than $70 billion into this insurance program, which covers workers hurt on the job. That's twice the bill of only six years ago.

The average cost of a "comp" claim has more than tripled over the past ten years, exceeding $19,000 and bruising even large employers. A FORTUNE 500 behemoth can easily pay out $50 million to $100 million a year in comp claims. Small companies have it especially rough. They often can't afford to self-insure as many large companies can, and their insurance premiums took annual double-digit jumps through much of the Eighties. In some states their premiums will do so again this year.

The economy as a whole is feeling the pain in slower growth. Workers' comp premiums are tied to a company's payroll, rising as employees are added or salaries increase. Recent surveys by the National Federation of Independent Business, the nation's largest small-business organization, reveal that in some states as many as one-fourth of the federation's members say they have laid people off or postponed new hiring and expansion specifically because of comp costs. Even La-Z-Boy Chair, the big furniture maker, felt the pinch last fall when it wanted to expand its plant in Neosho, Missouri, and add 200 to 300 workers to the 1,000 already on the payroll. Once the company took a look at the comp costs, the entire project was put on hold.

For several years now, reform of the workers' comp system has been near the top of the legislative agenda in many states. Business groups have been lobbying intensively for ways to slow the growth in benefits and for other structural changes that only lawmakers can put in place. But while these bills crawl through state assemblies,



FORTUNE CHART / SOURCE: NCCI

Ricardo Aguilar, whose job as an assistant operator at Weyerhaeuser calls for a lot of stair climbing, fractured his ankle. He now has a stationary job, scanning diapers for quality.

PHOTOGRAPH BY PHILIP SALTONSTALL

managers can effect dramatic cost savings on their own by focusing anew on safety and the care of injured employees.

Workers' compensation insurance pays medical expenses and part of lost wages to workers hurt on the job, whether the employee or the employer was at fault. It is a state-mandated program: Almost all employers are required to carry the coverage, and most get it through private insurers. (Big companies that can afford to self-insure sometimes do.) Premium rates are regulated by state insurance departments and vary from state to state and from one occupation to another. In Florida, for example, insuring secretaries costs about 70 cents per $100 of payroll, while protecting roofers costs a vertigo-inducing $48 per $100. Premiums also tend to rise with the number of claims. Benefits are set by state law, but a worker whose injury keeps him off the job usually receives about two-thirds of his regular weekly pay until he recovers. If he's found to have some kind of permanent impairment, he may receive additional benefits. His medical treatment costs are always fully paid.

WHAT WORKPLACE INJURIES COST

CONDITION	PERCENT OF ALL CLAIMS	AVG. COST PER CLAIM
Back strain	31	$23,916
Other sprains/strains	19	$13,611
Concussion/bruises	11	$12,055
Fracture	11	$23,138
Laceration/puncture	10	$9,722
Dislocation/crushing	3	$47,249
Burn	3	$12,833
Hernia	3	$24,499
Infection/inflammation	2	$13,805
Amputation	1	$40,249
Cumulative injury	1	$29,166
Occupational disease	1	$31,305

FOR MANY DECADES the system worked with something close to the efficiency its designers intended. But swelling medical costs, changes in the types of injury that are compensated, and disputes over awards for permanent disability have turned this quiet business backwater into a swamp of contention.

First off, medical costs. As nightmarish as the rise in total health care spending was in the Eighties, when it went from $1,063 per capita at the beginning of the decade to $2,566 in 1990, the cost of care under the comp system shot up some 50% *faster*. Why? In part because many of the cost containment strategies used by group health plans are either prohibited or neglected under workers' comp. For instance, in about half the states employers cannot require their injured people to see selected doctors. Comp is also first-dollar coverage: no deductibles or co-payments for the workers and therefore no incentive to think twice about paying the doc a visit.

The push for cost containment in group health has left comp the last blank check in medical care, and doctors may be turning to it to recoup losses elsewhere. A 1990 study by the Minnesota Department of Labor and Industry found that treatment for ailments such as back problems can cost more than twice as much when paid for by workers' comp as by Blue Cross.

Meanwhile the nature of worker injuries has changed. Once these had a terrible simplicity that was plain to the eye, like chopped fingers and broken bones. Today there are disorders that are more complicated and harder to assess. They can also lend themselves more easily to exaggeration or fraud. Back strain, for example, is both the most common workers' comp claim and one of the most nettlesome and expensive. It is hard to diagnose with any certainty, and two doctors can easily disagree about the severity of injury. Unequivocal answers are impossible for such questions as, How badly is the person hurt? What treatment does he need and for how long? When can he go back to work?

The comp system is also increasingly tripped up by claims for ailments that may have little to do with the workplace. Back problems, joint diseases, hearing loss, stress, and cancer can all be influenced by a worker's personal habits and genetic makeup. These disorders often arise gradually rather than through a single incident and may be due as much to aging as to job conditions. The result: expensive disputes between the worker and the company about the cause or nature of the illness. In 1990, California workers collected $7 billion in compensation claims, but the amount spent litigating disagreements was $1.5 billion.

Further contributing to all the litigation has been the rise of awards for permanent disability. Fair as such payouts may be, they are spawning battles for the best disability rating a worker can get. Each side enlists expensive forensic physicians to present diagnoses at the state workers' comp hearings because most states have no consistent guidelines for deciding how disabled a person is. Says Eric Oxfeld of the American Insurance Association: "Two workers with the same jobs and the same injury may end up with very different disability ratings. It's a crapshoot." And not for peanuts, either. Benefit payments for a permanent partial injury can last a lifetime and reach into the hundreds of thousands of dollars.

How do insurers keep up with this galloping payout rate? They don't. Though premiums have leapt, the increases in many states still fall short of what property and casualty insurers say they need to turn a profit. The industry's overall operating loss on the business came to $1.4 billion last year, and a number of insurers, including Liberty Mutual, the nation's largest workers' comp carrier, and USF&G, have stopped providing coverage in certain states.

Reform efforts are under way in many parts of the country. In Oregon and Colorado, for example, guidelines from the American Medical Association are now used for a more consistent and objective evaluation of disability. Colorado has also frozen doctors' fees for comp cases temporarily and limited the number of chiropractic visits a worker can indulge in. Several states are trying to discourage ambulance chasing by capping contingency fees for lawyers.

But reform will take time, and even then the manager at the work site will be the person best able to wrestle down costs. Here's how:

■ **Communicate with workers.** Jerry A. Miccolis, who heads the workers' comp consulting practice at Towers Perrin, says, "Most employees are completely in the dark about comp." A faded notice on the cafeteria bulletin board is usually the only thing that tells them about the system, while glossy brochures tout other benefits. "Some employers say, 'We're getting ripped off as it is. Why should we tell them more about workers' comp?' " Miccolis notes. The reason is that if the employer doesn't explain it, a TV ad

REPORTER ASSOCIATE *Sandra L. Kirsch*

for a lawyer will. And once an employee becomes an adversary, costs balloon.

■ **Show concern in an emergency.** The next critical point at which to communicate is right after an injury. Management needs to care for the worker, while maintaining some control over the case. One good way to do both is to have an on-site nurse who can provide immediate attention and help get the employee back to work. If he needs to be referred to a doctor, the nurse can also serve as a gatekeeper, guiding him toward sensible care. Marriott Corp. has adopted this strategy. The company installed an elaborate medical facility at its seven-year-old Atlanta hotel and runs smaller clinics in other cities. Says Chad Callaghan, Marriott's director of loss prevention: "We've found that the clinics reduce by 50% the frequency of injuries that result in lost time."

For an employee who does require outside care and time away from work, a sympathetic phone call or two letting him know he's missed can do a lot to assure his loyalty to the company. At Weyerhaeuser, which is self-insured, corporate safety director Ken Gipson encourages foremen to visit hospitalized employees and phone them periodically. Otherwise, Gipson says, "they tend to feel like someone's mad at them for getting hurt, like it will spoil the safety record or something."

■ **Penalize careless managers.** Another of Gipson's tactics, in addition to the bedside foreman, is to charge claims to the operating units where the injured employees work. Weyerhaeuser used to pay comp claims out of the corporate pool. Now every individual sawmill and plywood plant has to cover its own expenses. "We saw a tremendous increase in accident prevention activity," Gipson reports.

■ **Get employees back to work fast.** Ed Welch, a former workers' comp commissioner in Michigan and now a consultant in East Lansing, says that in his experience, "most men and women can't wait to get back during the first two or three weeks after they've been hurt. They feel bored and anxious. But if you leave them sitting idle for a few months or more, everything changes. Their attitude toward work and toward themselves deteriorates, and they never go back." And a dropout can leave an employer paying lifetime disability benefits.

Gipson is pushing for a speedier return of Weyerhaeuser's hurt workers. Says he: "The prevailing attitude of the company used to be that if you didn't have a full, unconditional release from your doctor to return to your regular job, then we had no place for you." That attitude is shared by the vast majority of employers. But Gipson has started a program of transitional work to ease an employee back into his regular job. A forklift driver with a sprained ankle, for example, can tally lumber or do office work. "The jobs have to be productive," Gipson warns. "We weren't just going to let someone sit in the tool room and read *Playboy*."

Weyerhaeuser is formalizing its return-to-work program with "task banks." Each department is responsible for finding assignments that an impaired person can handle and for contributing them to the bank. Says a human resources manager: "If you hit a supervisor when he's got 50 other things going on and say, 'What can this person do?' the response tends to be, 'I don't have anything for him.' You've got to have up-front planning." Moreover, if an employer has a job available and the worker refuses it, the company can usually cut his benefits.

Since Weyerhaeuser began getting its comp costs in hand in 1984, Gipson says, overall savings have come to $197 million. The cost of workers' comp claims has been chopped to 19 cents per man-hour, half what it was eight years ago.

■ **Find out what's causing injury.** A.T. Cross, the penmaker, began a systematic analysis of its workers' comp costs in 1988 with the help of consultant Michael Follick of Abacus Management Group in Providence. The company's insurance premiums for covering 1,300 workers at its Lincoln, Rhode Island, plant were tripling, and Cross decided to find out which parts of its operation were causing which injuries. Among the villains: safety buttons on a stamping machine. To make sure their hands did not get caught in the machine, workers had to push the buttons with both hands in order to stamp. The result was cumulative trauma, pain, and comp claims. So Cross invested in buttons that require mere touching rather than applied pressure.

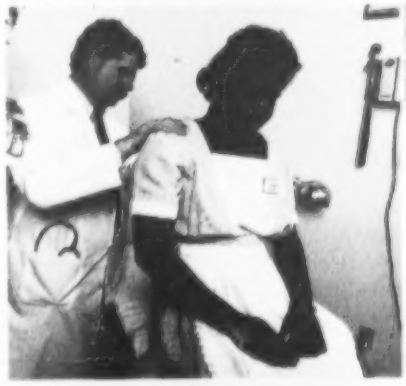
The analysis also turned up pockets of frequent back strain among people doing bench work, such as assembling pen cartridges. Too much sitting was the problem. In response, the company raised chairs and benches so that workers could sit or stand.

The impact in the first year was dramatic: a 43% reduction in injuries involving lost time and a 71% drop in total lost workdays. With that kind of control over safety, Cross could afford to self-insure beginning in 1990 at a savings of close to $1 million so far in comp costs. "Self-insurance in itself is not the solution," Follick emphasizes. "You've got to change your method of operation."

Change it soon, because the workers' comp system is only getting knottier. As the work force ages, those ailments that are already stymieing the system—back problems, joint diseases, hearing loss—will continue to increase. Legal reforms will be essential, but so will aggressive, compassionate management. F

CONCERN EQUALS CONTROL

Marriott's clinics provide attention to employees like housekeeper Rebecca Waller, who hurt her back in a fall. Workers can stand or sit on A.T. Cross's assembly line and avoid back strain.



COPING WITH THE DEFENSE BUILD-DOWN

Military cutbacks from master sergeants to nuclear subs pose economic and security risks. So far Washington isn't doing a bad job. But it needs to do better. Here's how. ■ *by Lee Smith*

AS THE COLD WAR fades into history, the gates are closing forever at military bases in the U.S. and abroad. Weapons production lines from Connecticut to California have shut down. That's good news for peace, a daunting challenge for policymakers.

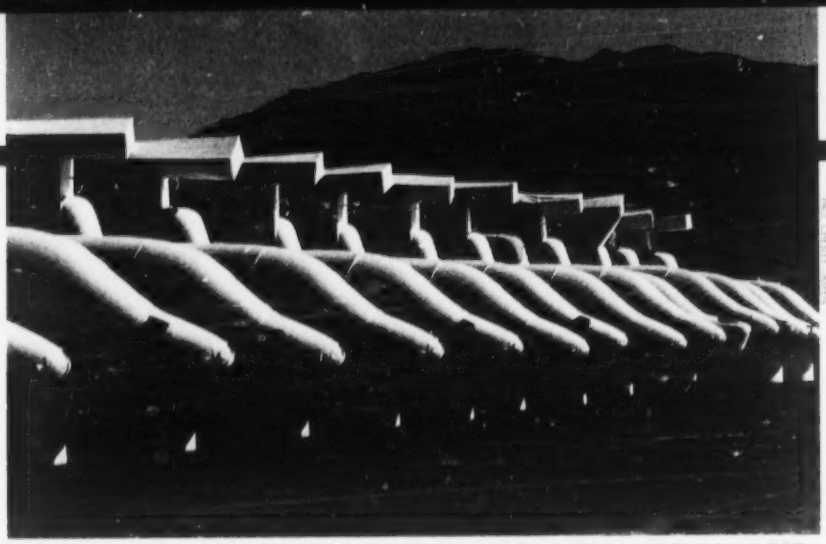
More than one million jobs—400,000 in uniform and over twice as many in the defense industry—may disappear by mid-decade. For Congressmen and other politicians from regions likely to be hardest hit, the economic consequences of the peace appear disastrous.

The prospect of grand-scale demobilization is raising security concerns as well. The U.S. downsized so recklessly after World War II that poorly trained and equipped GIs were chewed up by the North Koreans they encountered in 1950. Slashes in the defense budget after Vietnam created the infamous "hollow force," scraggly ranks of ill-disciplined troops. Will it happen again? Will America destroy the most competent armed force in its history?

Relax. So far Washington is cutting the military with more skill than usual. If that continues—and with a few additional improvements—this unprecedented restructuring will neither plunge the country back

The closing of U.S. military bases like this one outside Frankfurt provides an opportunity: turning highly trained soldiers into schoolteachers.

PHOTOGRAPH BY REGIS BOSSU—SYGMA



Helicopters mothballed in Arizona: With plenty of metal in inventory, the Pentagon is focusing on R&D.

into recession nor weaken national security. On the contrary, it should improve U.S. competitiveness in the long run.

But most of the tough decisions have yet to be made. The Bush Administration's $281 billion defense budget for fiscal 1993, which Congress is now debating, trims only $3 billion to $4 billion from what the military will likely spend this year. The main reason deeper cuts have been delayed is to provide time for defense contractors, and the communities that depend on them, to adjust. "None of the big firms appears mortally wounded, but all are going to lose some blood," says Wolfgang Demisch, defense industry analyst for UBS Securities.

Already the number of military suppliers has shriveled from 120,000 in the mid-1980s to 30,000 now—ranging from tiny machine shops and consultants up to industry leader McDonnell Douglas, which sold the government $8 billion worth of F-15s, Apache helicopters, and Tomahawk missiles last year (see table). The survivors will stay in business by maintaining and modernizing these old models rather than building new systems.

In many cases their laboratories will keep humming because the Pentagon plans to prepare for the battlefield of the 21st century by investing in prototypes of avant-garde weapons rather than new production runs. Lockheed, celebrated for the Skunk Works that produced the U-2 spy plane and Stealth fighter, and Martin Marietta, a leader in electronics, are particularly strong in basic research.

Exports will also help some contractors stretch out production lines. Finland, no longer worried about offending the Soviet Union, recently ordered 64 FA-18 fighter bombers from McDonnell Douglas for $3 billion. Even so, foreign sales are not going to rescue the U.S. defense industry. Says Gary Reich, a Shearson American Express analyst: "Nobody buys weapons the way we buy weapons."

CAN military manufacturers switch to more commercial lines of work? At the end of World War II, General Motors stopped making tanks, unpacked old tools, and turned out 1941 model cars for hungry customers with dollars they had been waiting a wartime to spend. Consumers don't seem to be starved for anything these days. Says Renso L. Caporali, chairman of Grumman Corp., which relies on the Pentagon for 58% of its sales: "If someone can name a civilian industry that doesn't suffer from overcapacity, I'd love to hear about it."

Instead of plunging into unfamiliar waters, as they have in downturns past, most defense companies are merely tiptoeing in this time round. Grumman, which lost a bundle on the bus business in the 1970s, is using skills developed for the military to create information systems for nonmilitary customers, including the police department in Seoul, South Korea. Northrop, maker of the B-2 bomber, is looking into possible opportunities in rail transportation. "We understand lightweight, strong structures that travel at high speeds," says Chairman Kent Kresa. "That's our technology."

By and large, however, military contractors will shrink, merge, or fail in the 1990s. What will this do to the economy? Critics and admirers of the military industrial complex vastly inflate its size and power. The Pentagon's shopping list is puny compared with the total of what consumers and businesses buy. For everything from aircraft carriers to management advice from Booz Allen & Hamilton, the bill came to $137 billion last year, or just 2.4% of GDP.

What *is* worrisome is that part of the defense industrial base might crumble and leave the U.S. vulnerable should it ever have to resume wartime production. The Bush Administration plans to identify and nurture leading-edge technologies, such as composite materials and electronic sensors, but will not try to save the entire supply network. What happens to the subcontractor that makes struts for the F-15? "It's not our job to keep him whole," says Deputy Defense Secretary Donald J. Atwood.

Basically, that's a sound policy. If a major conflict threatens, the economy should be robust enough to bring forth most parts and machinery, provided suppliers have a few years of lead time. (As this caveat suggests, American intelligence will need to be more vigilant—and accurate—in the post–Cold War era.) One particularly flexible sector is aerospace, where the U.S., led by Boeing, General Electric, and Pratt & Whitney, has a thriving commercial industry.

Ships are another matter. So scrawny is the U.S. commercial shipbuilding business that of the 3,000 oceangoing civilian ships ordered worldwide over the past three years, only three are being built at American shipyards. Unable to compete with Japanese and Korean rivals in the manufacture of supertankers and bulk cargo carriers, the

Captain Maria Myers is being forced to quit.

REPORTER ASSOCIATE: *Suneel Ratan*

half-dozen major yards that remain in the U.S. depend almost exclusively on the Navy.

Building a nuclear-powered sub or aircraft carrier is a complex and arcane task, comparable, in a profane way, to cathedral building in the high Middle Ages. If the teams that make these ships are dispersed, it could be as difficult to make another U.S.S. *George Washington*, the Navy's newest carrier, as it would be to recreate Chartres.

To prevent that, the Navy should bunch its dwindling purchases of new ships to guarantee that at least two yards prosper. One survivor ought to be Tenneco's Newport News, the largest manufacturer of vessels in the Western Hemisphere. It has a work force of 26,000 and is the only yard that can make nuclear-powered carriers, like the *George Washington* and two others under construction, and nuclear subs, as well as a full range of conventional ships, including commercial ones.

What Newport News wants from the Navy is maintenance work on nuclear subs to keep its reactor skills current, contracts to make some cargo ships, and an order for an additional $4.2 billion carrier. The U.S. doesn't need another flattop, but if that's the price for holding together a vital corps of craftsmen, it might be justified. To keep down operating expenses, which can run to $900 million a year for a carrier and 20 or so escort ships, the Navy should then retire one or more of its older carriers.

The real pain of demobilization will be borne by those who are put out of work. Congress's Office of Technology Assessment estimates that as many as 1.4 million jobs could disappear by 1995—about 500,000 uniform and civilian slots in the Defense Department and 900,000 in weapons plants. That's almost as many as the 1.7 million manufacturing jobs that the OTA calculates disappeared during the 1980s when auto, steel, and other industries contracted.

In earlier demobilizations the Pentagon gave little thought to how it reduced the ranks. Dogfaces who had been drafted were happy to quit. Officers who were considered excess were simply fired. Gordon Smith, a retired lieutenant colonel living in Virginia, recalls the post-Vietnam downsizing: "A young captain with car and house payments would find a letter in his mailbox telling him he had been selected to leave in 90 days." The military provided no severance pay and no help in finding a new job, a callousness that not only angered those who left but also depressed those who stayed.

This time around Christopher Jehn, Assistant Secretary of Defense for Manpower, consulted some private employers before coming up with a plan not too different from the sort of separation packages that industry provides. Officers and enlisted folks are offered lump sums or annuities to leave. If they refuse, they run the risk of being mustered out later with a much smaller benefit. After eight years in the Army, Corporal Eric McArtor, 31, a military policeman at Fort Eustes, Virginia, accepted a one-time payment of $17,500, which he will use to start training at a civilian police academy in Texas.

NOT EVERYONE is happy. "I feel like I'm in a tub of water and the plug has been pulled," says Captain Maria Myers, 33, a public affairs specialist at Langley Air Force Base. "I don't know if I'm going into the sewer or I'll be recycled into something else." She is being forced out after seven years, she believes, because people in her category, reserve captain, have almost no chance of

HOW THE TOP GUNS ARE FARING

Company	Pentagon contracts fiscal 1991 (millions)	Comments
MCDONNELL DOUGLAS St. Louis	**$8,057.3** 45% of sales	**Top planemaker reeling from troubles with the C-17 cargo jet and the end of F-15 fighter production. Lost out to General Dynamics and others in competition to build next-generation fighter. Civilian MD-80 and MD-11 business mixed, and deal for Taiwanese investment looks shaky.**
GENERAL DYNAMICS Falls Church, Va.	**$7,848.2** 85% of sales	**Selling missile business to Hughes for $450 million; member of team picked to build 650 F-22 fighters for up to $100 billion. Electric Boat division in trouble if White House wins bid to kill two Seawolf submarines worth $2 billion each. Tank business dead.**
RAYTHEON Lexington, Mass.	**$4,099.8** 43% of sales	**Missile maker has $8 billion order backlog. Work for Pentagon on Scud-busting Patriot program complete, but looking for boost with sales in Middle East. Hedging its bets by diversifying into energy and environmental engineering services.**
NORTHROP Los Angeles	**$3,319.2** 58% of sales	**With 50% of all revenues accounted for by B-2, facing grim prospects since program will be terminated after at most 20 planes. But business as a subcontractor providing avionics and advanced composites for commercial and military aircraft will likely expand.**
MARTIN MARIETTA Bethesda, Md.	**$2,689.2** 44% of sales	**Diversification into civilian materials and aerospace bodes well for rocket and aircraft-component maker. Lost $385 million bid with Lockheed for LTV aircraft and missile business, but that might revive if Pentagon blocks $450 million sale to French company Thomson-CSF.**
LOCKHEED Calabasas, Calif.	**$2,666.6** 27% of sales	**Poised to move up contractor list as leader of F-22 team, but congressional grumbling about cost of the program is mounting, and recent crash of prototype threatens delays. Also makes rocket boosters, C-130 transport, and Trident sub-based nuclear missiles.**
GRUMMAN Bethpage, N.Y.	**$2,363.5** 58% of sales	**Premier builder of carrier-based planes, but its big production lines—F-14 fighter and A-6 attack craft—are halting this year. Vying for $50 billion Navy A-X attack plane, but cuts could strangle program in crib. May end up downsizing to maker of electronics.**

promotion regardless of talent. Still, the $6,000 annuity she will get for the next 14 years is a generous settlement.

Among the other losers are 100,000 or so young people the military will not recruit this year. In the mid-1980s the Pentagon signed up as many as 350,000 newcomers annually, many high school graduates trying to learn a skill or save for college. For blacks and Hispanics the military has offered a better chance for promotion than most other occupations. During 1992, hiring will drop to 210,000. Jehn acknowledges that will mean a loss of opportunity. "Still, none of us wants to make the military a high-tech Job Corps," he points out, adding that the Pentagon expects the percentage of minorities (30%) and women (11%) in the services to remain about the same.

Indeed, the release of some black officers, both commissioned and noncommissioned, onto the civilian market could be a boon. Police work will likely be a growth industry in the 1990s that will demand the disciplined, motivated talent the military produces. Los Angeles is just the most obvious of a number of cities that might find it easier to repair community relations by hiring more cops who look like the citizens they serve. Only 36% of its force is black or Hispanic, vs. 57% of its population.

Also, military training leans toward science and engineering, disciplines in short supply in the inner city. Some of those discharged sergeants and captains should be turned into teachers. "What great role models they'd make for kids in East St. Louis," says Murray Weidenbaum, director of the Center for the Study of American Business at Washington University. "This could be the real peace dividend the country gets from defense cutbacks."

THE WAY to accomplish it, says Jehn, is for all states to imitate Florida, which allows instructors to start teaching before going through all the formalities of certification. One of Jehn's predecessors, Lawrence Korb, suggests an additional incentive. Currently those who leave the military before putting in 20 years receive no real pension. Let them count years spent in civilian teaching as part of their service, says Korb, now a senior fellow at the Brookings Institution.

Similarly, the contraction of the defense industry will push a lot of technical talent onto the commercial market—and none too soon. Japan, with only half the U.S. population, graduates about as many engineers. Moreover, the minuscule Japanese defense industry hires very few, unlike its U.S. counterpart, which in 1990 employed 342,000, or 18% of the nation's engineers.

Finding new jobs, particularly jobs that match their current wages, will be most difficult for blue-collar workers and middle managers. The Democrats want to spend $1.2 billion or more a year to help retrain them. President Bush in late May proposed a more modest $200-million-a-year program. In addition, some Democrats want to build two more Seawolf submarines, at about $2 billion each, even though the Navy doesn't need them. The prime reason is to support the economy of southeastern Connecticut.

But why should communities harmed by

TAXING Q

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EDS helped the city completely reengineer its parking program. Now,

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the loss of defense installations be treated more generously than those that suffer the shutdown of an auto or steel plant? True, unemployment will increase because Washington has changed a policy. But when the Fed raises interest rates, carpenters and bricklayers get tossed out of jobs as families stop buying homes. Government doesn't pay them top rates to do useless work.

"None of us wants to make the military a high-tech Job Corps."

Where both the Administration and Congress have fallen down is in their failure to design a military budget that answers the critical question: What does the U.S. need to guarantee national security? Washington is sure to spend billions more than necessary because Congressmen are guarding constituents' jobs and the Bush Administration is protecting generals' dreams. Despite its pledge to concentrate on R&D, for example, the Pentagon wants to proceed to full-scale production of the next generation of stealthy and souped-up fighter planes, the F-22. (The only prototype model so far crashed in an April test flight.) The cost of 650 planes could run to a staggering $100 billion. The project might have made sense when an ambitious Soviet aerospace industry seemed capable of matching the best in the U.S. It doesn't now.

Les Aspin (D-Wisconsin), chairman of the House Armed Services Committee, is a rare policymaker who has drafted a plan to shape the military to meet conceivable threats. The Bush Administration is proposing to shrink the military by 25% over five years—saving $43 billion above what would have been spent before the Soviet Union collapsed. Aspin would resize the Army, Navy, Air Force, and Marines to save an extra $48 billion over the same period.

He justifies his shrinkage by listing the countries that might challenge the U.S. military in the next decade: Iraq, Iran, Syria, Libya, North Korea, China, and Cuba. Only China has more soldiers than Iraq had on the eve of Desert Storm, and the Chinese have fewer tanks and artillery.

Aspin concludes that it is hard to imagine even a coalition of hostile forces that could not be leveled with a punch like the one the U.S. threw at Iraq. Adding all the potential calamities up and figuring in the might of America's allies, he calculates that the largest force the U.S. needs is this: nine active and six reserve Army divisions (compared with the current 16 and ten); two active Marine divisions and one reserve (vs. three and one now); 720 fighter planes with 570 in reserve (vs. almost 1,600 and 860 currently); and 340 ships (vs. 520 afloat now).

Overall, Washington is off to a reasonably good start at shrinking the military. Adopting the Aspin alternative would make the fit a lot better. There's little chance that will happen this year. But next year, if the economy continues to strengthen and the impulse to subsidize make-work defense jobs declines, who knows? For the first time ever the U.S. just might get demobilization right. F

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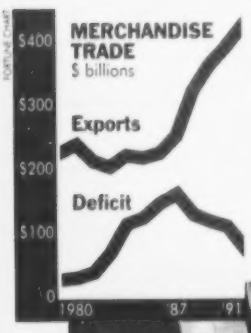
U.S. EXPORTERS ON A GLOBAL ROLL

FORTUNE's annual ranking shows how strong sales abroad help companies offset weakness in the American economy. Foreign subsidiaries are more important than ever. ■ *by Therese Eiben*

REASON NO. 1 for going global: It provides a powerful extra source of growth. While U.S. companies hunkered down to tough out an anemic recovery in the domestic market last year, U.S. exports rose to a new record—pushing America past a flagging Germany as the world's champion exporter. Sales of the FORTUNE 500 dropped in 1991, but exports of the list's 50 largest exporters rose 10%.

Just a fluke, or is world trade truly reordering itself? Some analysts dismiss last year's U.S. domination of international markets as a phenomenon of the dollar's weakness. But Commerce Department chief economist Antonio Villamil thinks otherwise: "Export growth will continue solidly this year," he predicts, partly because U.S. companies are designing products more attentively to meet the wants of foreign customers. Villamil and other economists note further that U.S. companies are manufacturing an ever broader array of products in overseas subsidiaries, producing sales that are an important part of their global business but don't get counted as exports. Philip Morris (No. 12) took in over $13 billion of sales from non-U.S. subsidiaries last year, for example, far more than its $3.1 billion of exports.



The industry adding sales fastest overseas is office and computing machinery, which increased domestic revenues 32% from 1983 to 1989, vs. a 166% increase abroad. Sun Microsystems, which didn't even exist a decade ago, last year got more than half its $3.3 billion of sales from outside the U.S.

Beleaguered at home in 1991, automakers found relief in exports and other international sales. General Motors' export sales jumped $1 billion over 1990. The largest U.S. auto exporter to the Middle East, GM did a brisk business replacing vehicles destroyed in the Persian Gulf war. The company continued to establish dealerships and assembly plants in Eastern Europe. Ford, with 20 plants in Western Europe, is well positioned in the world's largest integrated market. Chrysler opened a Eurostar minivan assembly plant in Graz, Austria, last year, capitalizing on its domination of the European minivan business.

The trend toward overseas production is welcome because it helps the U.S. in all sorts of ways:

■ It finesses many of the looming worries about the formation of protectionist trade blocs. Dow Chemical's joint venture with Sumitomo Chemical to make high-performance plastics for medical equipment and motor vehicles will build the largest polycarbonate resins plant in Japan. In the same vein are Sun Microsystems' joint venture with Fuji/Xerox, also in Japan, and an alliance between Ford and Volkswagen in Portugal.

■ Making products abroad helps U.S. companies understand the needs of foreign customers. Results include such items as Ford's windshield wipers designed to accommodate the superhigh speeds of German autobahns and Hewlett-Packard's computer manuals in Turkish.

■ Growing foreign operations even help U.S. exports as traditionally measured. Reason: At least 25% of merchandise exports are intercompany transfers—sales of products, components, and subassemblies by U.S. parent corporations to non-U.S. affiliates.

The National Association of Purchasing Management says export orders continued to expand in the first four months of 1992, and the outlook is definitely sunny. U.S. exports have increased every year since 1985, recently weathering economic downturns in Canada, Western Europe, and Japan. Economists forecast rebounds in all those places later this year—and U.S. exporters are set to ride the wave. F

Building foreign sales fast, Sun Microsystems distributes U.S.-made computers from a Tokyo suburb.

TOP 50 U.S. EXPORTERS

RANK 1991	1990		MAJOR EXPORTS	U.S. EXPORTS 1991 $ millions	% change from 1990	As % of total sales %	RANK	TOTAL SALES 1991 $ millions	FORTUNE 500 SALES RANK
1	1	**BOEING** Seattle	Commercial and military aircraft	17,856.0	11.0	60.9	1	29,314.0	12
2	2	**GENERAL MOTORS** Detroit	Motor vehicles, parts	11,284.7	9.4	9.1	39	123,780.1	1
3	3	**GENERAL ELECTRIC** Fairfield, Conn.	Jet engines, turbines, plastics, medical systems	8,614.0	20.8	14.3	25	60,236.0	5
4	5	**INTL. BUSINESS MACHINES** Armonk, N.Y.	Computers, related equipment	7,668.0	23.8	11.8	31	64,792.0	4
5	4	**FORD MOTOR** Dearborn, Mich.	Motor vehicles, parts	7,340.0[1]	3.4	8.3	41	88,962.8	3
6	6	**CHRYSLER** Highland Park, Mich.	Motor vehicles, parts	6,168.0	23.3	21.0	12	29,370.0	11
7	9	**MCDONNELL DOUGLAS** St. Louis	Aerospace prod., missiles, electronic systems	6,160.0	74.1	32.9	5	18,718.0	21
8	7	**E.I. DU PONT DE NEMOURS** Wilmington, Del.	Specialty chemicals	3,812.0	(12.4)	10.0	34	38,031.0	8
9	10	**CATERPILLAR** Peoria, Ill.	Heavy machinery, engines, turbines	3,710.0	8.0	36.4	4	10,182.0	45
10	8	**UNITED TECHNOLOGIES** Hartford	Jet engines, helicopters, cooling equip.	3,587.0	(0.5)	16.9	15	21,262.0	16
11	13	**HEWLETT-PACKARD** Palo Alto, Calif.	Measurement and computation prod. and sys.	3,223.0	14.5	22.2	11	14,541.0	26
12	12	**PHILIP MORRIS** New York	Tobacco, beverages, food products	3,061.0	4.5	6.4	46	48,109.0	7
13	11	**EASTMAN KODAK** Rochester, N.Y.	Imaging, chemicals, health products	3,020.0	2.1	15.4	21	19,649.0	18
14	14	**MOTOROLA** Schaumburg, Ill.	Commun. equip., cellular phones, semicond.	2,928.0	4.5	25.8	8	11,341.0	39
15	27	**ARCHER-DANIELS-MIDLAND** Decatur, Ill.	Protein meals, vegetable oils, flour, grain	2,600.0[2]	123.6	30.3	6	8,567.7	60
16	17	**DIGITAL EQUIPMENT** Maynard, Mass.	Computers, related equipment	2,200.0	14.6	15.7	19	14,024.2	28
17	24	**INTEL** Santa Clara, Calif.	Microcomputer components, modules, systems	1,929.0	60.4	40.4	3	4,778.6	106
18	18	**ALLIED-SIGNAL** Morristown, N.J.	Aircraft and automotive parts, chemicals	1,729.0	(5.9)	14.6	23	11,882.0	36
19	30	**SUN MICROSYSTEMS** Mountain View, Calif.	Computers, related equipment	1,606.0	43.7	49.3	2	3,259.8	146
20	15	**UNISYS** Blue Bell, Pa.	Computers, related equipment	1,598.0	(27.5)	18.4	13	8,696.1	58
21	21	**RAYTHEON** Lexington, Mass.	Electronics, environmental syst., aircraft prods.	1,556.0	8.4	16.6	17	9,355.5	51
22	20	**WEYERHAEUSER** Tacoma	Pulp, paper, logs, lumber	1,550.0	(0.6)	17.8	14	8,701.6	57
23	22	**DOW CHEMICAL** Midland, Mich.	Chemicals, plastics, consumer specialties	1,376.0	2.4	7.1	44	19,305.0	20
24	19	**GENERAL DYNAMICS** St. Louis	Tanks, aircraft, missiles, gun systems	1,370.0	(15.6)	14.3	24	9,548.0	50
25	28	**MERCK** Rahway, N.J.	Health products, specialty chemicals	1,342.0	16.1	15.6	20	8,602.7	59
26	25	**MINNESOTA MINING & MFG.** St. Paul	Industrial, electronic, and health products	1,275.0	6.3	9.6	36	13,340.0	29
27	33	**INTERNATIONAL PAPER** Purchase, N.Y.	Pulp, paperboard, wood products	1,200.0	9.1	9.4	37	12,703.0	31
28	23	**UNION CARBIDE** Danbury, Conn.	Chemicals, plastics	1,200.0	(6.3)	16.3	18	7,346.0	66
29	31	**TEXTRON** Providence	Aerospace and consumer products	1,171.0	6.2	14.9	22	7,840.1	63
30	34	**HOECHST CELANESE** Bridgewater, N.J.	Chemicals, plastics, fibers, pharmaceuticals	1,158.0	6.7	16.9	16	6,856.0	75
31	26	**WESTINGHOUSE ELECTRIC** Pittsburgh	Electrical products, electronic systems	1,141.0	(4.5)	8.9	40	12,794.0	30
32	35	**MONSANTO** St. Louis	Herbicides, chemicals, pharmaceuticals	1,128.0	4.5	12.6	30	8,929.0	53
33	37	**XEROX** Stamford, Conn.	Copiers, printers, document processing services	1,040.0	15.6	5.8	47	17,830.0	22
34	36	**ALUMINUM CO. OF AMERICA** Pittsburgh	Aluminum products	967.0	4.4	9.7	35	9,981.2	46
35	41	**ABBOTT LABORATORIES** Abbott Park, Ill.	Drugs, diagnostic equipment	957.0	17.5	13.8	27	6,921.7	74
36	16	**OCCIDENTAL PETROLEUM** Los Angeles	Agricultural products, coal	951.0	(54.2)	9.2	38	10,304.8	43
37	29	**COMPAQ COMPUTER** Houston	Computers, related equipment	950.0	(15.3)	29.0	7	3,271.4	145
38	39	**FMC** Chicago	Armored military vehicles, chemicals	913.0	7.7	23.2	10	3,931.5	119
39	38	**MILES** Pittsburgh	Chemicals, health and imaging products	877.0[3]	1.4	14.2	26	6,197.4	85
40	47	**COOPER INDUSTRIES** Houston	Petroleum and industrial equip., elec. products	835.0	26.0	13.5	28	6,162.6	86
41	40	**ROCKWELL INTL.** El Segundo, Calif.	Electronics, automotive parts	828.0	(0.8)	6.9	45	12,027.9	35
42	43	**HONEYWELL** Minneapolis	Building, industry, and aviation control systems	808.0	7.7	13.0	29	6,220.9	83
43	45	**BRISTOL-MYERS SQUIBB** New York	Drugs, medical devices, consumer products	807.0[3]	8.9	7.1	43	11,298.0	40
44	50	**LOCKHEED** Calabasas, Calif.	Aerospace products, electronics, missile systems	794.0	35.0	8.1	42	9,809.0	47
45	32	**EXXON** Irving, Texas	Petroleum, chemicals	744.0	(32.4)	0.7	50	103,242.0	2
46	42	**DEERE** Moline, Ill.	Farm and industrial equipment	713.0	(5.9)	10.1	33	7,055.2	72
47	44	**AMOCO** Chicago	Chemicals	712.0	(4.2)	2.8	49	25,604.0	14
48	46	**TENNECO** Houston	Farm, construction, and auto equipment	692.0	(2.7)	4.9	48	14,035.0	27
49	49	**ETHYL** Richmond	Specialty and petroleum chemicals	655.0	10.5	25.4	9	2,574.8	173
50	48	**REYNOLDS METALS** Richmond	Aluminum, aluminum and plastic products	603.0	(5.6)	10.4	32	5,784.5	93
		TOTALS		130,406.7				987,755.1	

[1]Excludes some U.S. export figures. [2]Includes sales value of grain merchandise; 1990 figure did not. [3]Includes Canadian exports.
[4]A wholly owned subsidiary of Bayer AG, Germany. [5]FORTUNE est.